ERG *Newsletter*

Energy and Resources Group University of California, Berkeley

COMMENCEMENT 2010

ALUMNI HOUSE U.C. BERKELEY

MONDAY MAY 17, 2010

PH.D. RECIPIENTS:

Merrill Jones Barradale

ERG graduations – culminations of the energy, friendship, and support that personify ERG – have always been wonderful days, so I both rejoice in and regret this last one for me, my own graduation. I have interspersed my (lengthy) stay at ERG with time out to get a business degree, to work for a consulting firm in the electric power sector, and to start a family. These were not detours; they were part of my path. So now, having incorporated academic, personal, and professional aspects into my ERG life, I am ready to go forward in my chosen field of renewable energy finance.

My dissertation on practitioner perspectives on investment decision-making in the electric power sector has been a joy and a challenge, thankfully with excellent advice and encouragement from Rich Lyons, Isha Ray, and Alex Farrell.

I am heading off to a post doc with the economics department at Copenhagen Business School, where my husband will be teaching. There I can work on a few more papers using my survey data that cry out for writing, but that I just haven't gotten to yet, such as financial modeling methodology for new power plants and motivations for wind project development.

Mike Dwyer

I feel blessed to have been a member of the ERG community these last few years. My time here has both redirected and profoundly enriched my earlier trajectory of social and environmental activism. As a Masters student, I became immersed in the technical aspects of mapping and landscape ecology that would prove central to my dissertation research, both analytically and institutionally. In my dissertation, I used the case of agribusiness investment in Laos to explore a set of historical, technical and political-economic dilemmas about development that have come together recently in the form of transnational farmland deals, or what some call the new "global land grab." In conducting participatory research with the agency responsible for regulating these land deals, my work highlighted the role that property formalization plays in either exacerbating or reversing the historical legacies of the Cold War in Southeast Asia, and the role that mapping in particular plays in either visualizing or obscuring this process. ERG was the perfect environment

PH.D. RECIEPIENTS, continued:

for my work; to the extent that I have been able to blend critical social science with policy-based collaboration, it has been because of ERGies' dogged insistence on following the problem wherever it takes you, but on being able to engage it in plain and accessible terms all the while.

Asher Ghertner

Since completing my Masters in 2004, I've spent as much time in India as in the US - first studying Hindi and then attempting to use it during two years of fieldwork in Delhi's slums, local government offices, and courtrooms. My research question started simple - how can a city justify the forced displacement of millions of its residents - and grew into a complex critique of sustainability, the technologies of urban planning, and the study of politics. Through this journey, I have stayed in shanties, traversed the social sciences, and lived a political life torn between distant continents. Yet, ERG has remained my home base throughout, and I am incredibly grateful to the ERG community for asking me hard questions, creating a collaborative environment, and allowing me to stretch the limits of what I thought doable. I'm moving on to London and a tenure-track position in an academic system somewhere between Delhi and Berkeley (the Department of Geography and Environment at the London School of Economics) and I hope that I can bring a bit of both places with me as I go forward, as they have profoundly shaped the scholar, friend and colleague I have become. I'd like to thank ERG, and especially the critical social scientists among us, for sustaining me through these wonderful years.

Eric Hallstein

I have been fortunate enough to do two stints at ERG. Both times, my mentors and colleagues helped create an experience far richer than I anticipated. John Harte and Dick Norgaard welcomed me back for the doctoral program after a long tenure in Corporate America with the Boston Consulting Group. John is responsible for some of my favorite graduate school experiences: being a student instructor for his course on global environmental problems, two summers at the Rocky Mountain Biological Laboratory, and loads of engaging conversations with him and his lab group. John started me down the path of thinking about whether changing patterns of household consumption could be a successful and economically efficient way to reduce the environmental costs that many industries impose on society, the theme that became the focus of my dissertation research.

Dara O'Rourke and my colleagues in the Consumer Information Lab shared many amusing moments as we developed and then spun out a portion of our research as the venture-backed startup GoodGuide (www.goodguide.com). Sofia Villas-Boas recognized the potential of my seafood labeling project before me, and has been incredibly supportive as I learned the microeconomics necessary for my work. Isha Ray and Priya Raghubir helped me select, frame and defend my research. The late Alex Farrell nearly convinced me to pursue my interest in consumer behavior through the lens of energy efficiency. In four years of weekly meetings (!), Anne Short and Mike Kiparsky made sure that I never strayed too far off point. I owe many thanks to my wife, Stephanie, with whom I am embarking on another of life's big adventures: parenthood.

Michael Kiparsky

ERG disease (urgh diz'-eze) n. Wide-ranging intellectual curiosity *n.* A tendency to consider everything interesting and worthy of study *n.* Resistance to narrowing disciplinary or topical scope

I came to ERG to learn about science and policy, with the ultimate goal of working at the interface between the two. I was also seeking a broad understanding of water resources, some intellectual mentorship, and a bit of fun. After all the twists and turns l am happy to have met my goals, in spite of my "ERG disease."

For my dissertation research, I developed a method to quantify the impacts of climate change, land use change, and population growth on water supply. I integrated the hydrologic impacts of multiple stressors (geophysical modeling) with the consequences of those impacts to water managers in California's Central Valley (risk and decision analysis). I hope the resulting method will eventually inform local resource management and also answer broader questions about future impacts and adaptation. I feel fortunate that ERG affords the freedom to craft such a project, and doubly fortunate to have been advised by Michael Hanemann, whose able mentorship has been the highlight of a rich experience at Berkeley.

Of course, in the end I unearthed more new questions than I managed to answer. Perhaps that's because I never cured my case of ERG disease. For the sake of the world I hope no one ever does.

Anita Milman

I'm settling into life as an ERG alum by learning to rein in my overwhelming desire to describe the entire gestalt that constitutes water in order to focus on implementing specific changes to the way we manage California's water. More specifically, I'm working at NRDC in their water program, motivating Metropolitan Water and others to adopt policies that encourage water use efficiency. Although I no longer spend my Wednesday afternoons being exposed to the amazing research of my colleagues while sitting in the corner of the ERG reading room, I am constantly reminded of how embedded that experience has become in who I am. I find comments on revenue decoupling, bio-char, institutional bricolage, and hegemony seem to jump out of my mouth, astounding both myself and (as I like to think) my co-workers (who are perhaps more confused than impressed). More-over, it appears my adventures conducting research on groundwater along the US-Mexico border, including smoozing my way to data acquisition and getting stopped by the border patrol actually helped me to develop skills useful for policy analysis and advocacy.

But back to ERG - my dissertation research explained how fragmented institutional arrangements combine with epistemic and aleatory uncertainty regarding flows of groundwater to inhibit collaborative management of the transboundary Santa Cruz aquifer, located between Arizona and Sonora. My findings point to how governance structures need to be realigned in order to facilitate cooperation. The groundwater modeling portion of my work, which was presented to the congressionally funded Transboundary Aquifer Assessment Program, indicated how to best target additional data and testing so as to improve understandings of water availability and the impacts of pumping both within and across each side of the border. So hopefully, I achieved my goal of contributing both to academia and the entities I was studying.

A description of my research doesn't do justice to the past several years; my time at ERG has meant much more to me than simply academic training. So I want to take the remainder of my newsletter space to thank the large number of people and institutions who supported me, helped me to grow, made me laugh, gave me more work to do, took me to lunch or out for a beer, and made me soo sad to leave. In particular, I extend my gratitude to Isha Ray and Dan Kammen, along with the many other professors I worked with including Nicholas Sitar, Michael Hanemann, Tad Patzek, and Alex Farrell, and the ERG staff (Both Janes, Donna, Sandra, Bette, and Lee). I can't end without expressing my love for the wonderful ERG community who have become my dear friends and who I will cherish and stay in contact with for many years yet to come. Thank you all!

Tracey Osborne

Tracey Osborne arrived in Berkeley with an interest in carbon forestry – specifically, the planting and maintenance of trees as a means to generate income for communities, protect biodiversity, and mitigate global climate change. For her dissertation she investigated sustainable development claims in community-based carbon forestry programs in Chiapas, Mexico, where small farmers plant trees as part of the carbon market. Through this research, she discovered that social and environmental outcomes can be highly uneven, and cannot be understood without attention to the history of land in particular places.

Tracey is currently a post-doctoral fellow at the Institute of the Environment, a cross-disciplinary center of the University of Arizona. She conducts research on the political economy of carbon-offset projects in Latin America, and climate justice issues in the American Southwest. In January 2011, she will move to the University's School of Geography and Development as an assistant professor. She is broadly interested in markets for environmental services and how they intersect with rural communities' land and labor practices.

Before coming to Berkeley, Tracey received a bachelor's degree from Wesleyan University, a master's degree in Food and Resource Economics from the University of Florida and had worked with a number of environmental non-profit organizations on issues ranging from tropical deforestation to global climate change.

Rich Plevin

I came to ERG in 2004, certain that I was here only for the 2-year Masters program with no interest in a PhD. However, working closely with Alex Farrell, Mike O'Hare, Dan Kammen, Andy Jones, and others on several fun and important projects convinced me that it was possible to accomplish quite a lot while a PhD student at ERG. Anyway, I hadn't nearly had my fill after two years.

My time at ERG has been marked by a nearly continuous stream of very enjoyable and productive collaborations, especially with Alex, Mike, Andy, and Adam Brandt, as well as colleagues at UC Davis, and our friends at the California Air Resources Board. Working with CARB on the Low-Carbon Fuel Standard has been an invaluable experience that also provided a clear direction for my dissertation. Thanks to everyone at ERG for making this such an extraordinary warm, comfortable, and enriching place to call home.

I will remain in Berkeley after graduation and hope to continue collaborating with my ERG colleagues, new and old.

PH.D. RECIPIENTS, continued:

Deepak Rajagopal

Lifecycle based regulation of greenhouse gas emissions: A Rube Goldberg Contraption* of Climate policy: Deepak's research interests lie in analyzing the economic and environmental tradeoffs of energy technologies and policies. His dissertation research investigates the implications of new approaches to environmental regulation such as the use of lifecycle assessment (LCA) based standards for fuel greenhouse gas (GHG) emissions. Intuition suggests that addressing global climate change in a globalized world requires a global policy.

With such a policy proving elusive, regional policies are being implemented to limit GHG emissions. In the US, LCA has emerged as a major tool for designing regional policies that account for emission leakage. Focusing on such regulations, Deepak's dissertation argues that despite being intuitive and well intentioned, these policies are costly at best and counter-productive at worst and that such policies can be a complement but not a substitute for policies like carbon pricing and payment for ecosystem services.

Deepak has been conducting this research under the supervision of Prof. David Zilberman whose mentorship and support have been truly outstanding, and generous financial support from the Energy Biosciences Institute. Beginning this summer, Deepak will be taking up a faculty position in the Institute of Environment at the University of California, Los Angeles where he hopes to continue interdisciplinary research on energy, water and the environment.

He is currently a post-doctoral researcher at the Energy Biosciences Institute at the Univeristy of California, Berkeley since completing his PhD in Energy and Resources in July 2009. His research has been published in the *Annual Review of Resource Economics, Environmental Research Letters, World Bank Working Paper Series, Water Policy, Foundations and Trends in Microeconomics, Handbook of Bioenergy Economics, California Agriculture*, and *AgBioForum*. Deepak also holds MS degrees in Agricultural and Resource Economics from UC Berkeley, in mechanical engineering from University of Maryland, College Park, and a Bachelor's degree in mechanical engineering from the Indian Institute of Technology, Madras. Before coming to ERG he worked for three years as a structural and reliability engineer at United Technologies Research Center in Hartford, Connecticut.

** A Rube Goldberg machine is a deliberately over-engineered machine that performs a very simple task in a very complex fashion, usually including a chain reaction. (Source: Wikipedia)*

Congratulations on your accomplishments and best wishes as you embark on missions and a future in which human material needs and a healthy environment are mutually and sustainably satisfied.

Best,
Shelly Zedeck
Vice Provost for Academic Affairs & Faculty Welfare

Malini Ranganathan

Inspired by the doors opened to me at The Energy and Resources Institute, New Delhi, I came to Berkeley in 2003 to pursue a dream. That dream entailed learning from people who *live* the change they want to see in this world. ERG has been that dream. It has not only equipped me to more fully and effectively shape a better world, but it has also provided the academic freedom for critical explorations into issues of resource access, politics, and power. I am grateful for the many lessons learned over the years, but perhaps two rise above the rest: first, the lesson of epistemology—how we *know* an environmental (or) justice problem influences how we *act*—and, second, passion and a good sense of humor take you a long way.

My doctoral dissertation studies the emergence of a new, market-based paradigm for financing and pricing drinking water on the peri-urban outskirts of Bangalore (Bengaluru) in southern India. Apart from investigating the equity outcomes and contestations related to water policy reform, my work also lays bare the policy-making process, and how and why it is that particular expert discourses have assumed center-stage to the exclusion of others in the contemporary moment. One of my key arguments is that struggles over water access are simultaneously struggles over land and the right to live in the city. This is a reality that current policy approaches neglect to consider, but must, given how formative the Bangalore case is to metropolitan governance in developing Asia today. To extend this work, I will be starting a post-doctoral fellowship at the University of Illinois, Urbana-Champaign's program on Social Dimensions of Environmental Policy later this year.

I am deeply indebted to my chair, Ananya Roy, for believing in me. I have also been enriched by the support of Isha Ray, Peter Evans, Dan Kammen, Dick Norgaard, and friends and staff at ERG. To colleagues in my writing group: thank you for making me a better scholar and for much mirth along the way. To my family, my partner, and to close friends here and departed: you are the reason I have come this far, and the reason I am able to happily soldier on.

Anne Short

It has been a privilege to find my way through graduate school as part of the ERG community– a group that never fails to amaze and inspire me with their caring, creativity, and intellect.

I came to ERG to study and understand how society can move towards a more sustainable future through better governance of complex human-environmental systems. My dissertation research asks if and how a variety of regulatory and non-regulatory programs promote the use of pollution control practices on private lands in the North Coast of California. I find that the effectiveness of these programs differs by land use, and uncover several 'ungovernable' areas that are out of the reach of the state and civil society.

Next fall, I'm moving back east where I'll join the faculty in Department of Geography and the Environment at Boston University. I'd be much more scared about this move if I didn't plan to bottle ERG up and bring it with me in whatever ways I can.

Graduate school has been a much more rewarding and smooth experience because of the people that have helped along the way. I am deeply grateful for the excellent and enthusiastic mentorship of my advisor, Tim Duane, and for the support of my entire committee. Many thanks to friends, on and beyond campus, for the good times and the helping hands that have always been nearby when needed. Finally, I have endless gratitude and love for my family and those friends who have always felt like family– your love and unquestioning support has sustained me through this and all of my adventures.

ERGies as ART in Lebanon

MASTERS RECIPIENTS:

Alisar Aoun

Joining ERG has been one of the most honest decisions I have made in my life. It may be the first which I conceived of on my own and flew with. When I recall leaving my transportation engineering job 2 years ago, the first thing that comes to mind is lots of eyebrows up in the air. I must have reveled in designing my own path, and not another fat highway leading to nowhere. I remember the sensation of a long-awaited mental clarity permeating my brain, as I listened to Dick Norgaard's welcome-to-ERG voicemail in my work lunchroom one winter day. Now I would shed my forsaken profession.

After about 2 weeks in ERG, the honeymoon was over, and my acumen became tie-died with confusing equations and philosophical black holes. I began to have nightmares about highways. Well not really, but the ghost of my old job haunted me with unanswered questions. I found myself drifting back to transportation. But instead of being at odds, I wrestled it, and massaged it, and ate it, and painted it, and now - we're inseparable. Thank you, ERG.

Zoë Chafe

I came to ERG from the Worldwatch Institute in Washington, DC, with the goal of better understanding the intersections of climate change and public health. As I complete my masters project, which estimates the proportion of outdoor air pollution that can be attributed to household fuel use (in conjunction with the Global Burden of Disease Study), I am acutely aware of the knowledge and skills that I've acquired at Berkeley. My learning is in no small part due to the diversity, generosity, and general curiosity of my nine wonderful classmates and dedicated advisors.

Fully describing my time at ERG is much like trying to model household fuel use: I can cite numbers (5 wonderful ERG staff, 50 problem sets, ~180 café study sessions); draw on behavioral observations (Wednesday afternoon: the ERG lounge is filled with ER102/200 calculations, erasers, and bubble tea); and describe trends (pick any campus lecture on energy or resources; there is >75% chance that an incisive question will ring out in a familiar ERGie voice). In the same way that we often fail to capture the intricacies of energy decisions, though, statistics and stories stop short of capturing all of the groundbreaking thinking, creative collaboration, and general goodwill that one finds at ERG. I can only say that I am profoundly grateful to have joined this important community.

MASTERS RECIPIENTS Continued:

Lara Cushing

I came to ERG looking for an academic home that would let me explore my passion for social justice as well as environmental protection. While I graduated with a B.S. in Molecular Environmental Biology from Berkeley in 2003, since then you'd be more likely to see me covered in campaign buttons than a lab coat. Of my work prior to coming to ERG, I'm most proud of having helped win substantial clean up of military toxins in the low income Mexican neighborhoods of southwest San Antonio, TX and a commitment from the local public utility to double its energy conservation goals and weatherize 50,000 low income homes. Wanting to continue to do research relevant to disproportionately impacted communities, I partnered with the Trade Union of Waste Pickers in Pune, India to look at the social implications of climate change policy for my master's project. I will be traveling to Mexico City this summer with the support from the University of California Human Rights Center before pursuing another masters - this time of public health - at Berkeley next year. A big thank you to my parents for their unending support of all my endeavors and to the ERG staff, faculty, and students for the real luxury of being able to step back and do nothing but think critically over these last two years!

Jamil Farbes

I was fortunate to have stumbled across ERG googling for grad school programs. A couple of years out of my undergraduate degree in biochemistry I had scrapped my plans for medical school, and was having a difficult time figuring out how to begin a career trying to combat climate change. I knew I needed to go back to school, but wasn't sure for what exactly.

I was down-right lucky to have the opportunity to come to ERG and join such an amazing group of smart, compassionate peers. Coming to ERG I was expecting a lot of hard work and intellectual reward, but I had no idea I would be surrounded by such great people, or make new life-long friends. At ERG I've fostered my academic interests in climate change and policy, but I've also been continually reminded why we all work so hard and care so deeply. Thank you to all of you for sharing so much—particularly the homebrew, the Wamazing cooking and impromptu powder days—and I'm eternally grateful for the help even when I wasn't good at asking for it. And Imran, high five to sharing in that 20%. Represent.

Bessma Mourad

One fateful day while on the highway somewhere between Salida and Colorado Springs, Lara Cushing (my former co-worker, good friend, and soon to be classmate) told me about the Energy and Resources Group. Having had several professors in undergraduate who received their PhDs from ERG, I assumed it was too techie for my non-technical background. Then came my visit that following spring. While having coffee with a former ERGie, I mentioned that my interests lie somewhere at the intersection of conflict, water, and gender; mainly in the Middle East, and involving elements of environmental health and social justice. Her response: "That's so ERGie". I was shocked.

Looking back, I now realize that ERG is the unique place I was looking for, in which all these diverse interests can converge. In addition, having previously worked in women's rights at the Global Fund for Women, I was surprised by the easy transition back to school given a cohort made up of 80 percent women! The two years that have since ensued have been full of crash courses in chemistry, physics, and calculus (thanks Imran, Anna, and Jamil!), metaphors regarding the likes of carbon, ecosystem services, and CPHS (yes Zoë!), countless conversations over meals, drinks, and gchat windows from our desks in Berkeley, to cafes in Beirut (shukran ya Alisar!), and being convinced to make time for soccer games and exercise (and yogurtland!) in the midst of endless readings and problem sets (danke/хвала/gracias Mary, Jelena and Aleja!). In short, my classmates have truly made this experience exceptional; not sure I would have made it through without each of you!

Tahoe Ski Weekend (or eat weekend?)

Alejandra Rueda-Zarate

Prior to coming to ERG, I worked in the agriculture sector and was part of the group that developed Colombia's National Biofuel Program. I came to ERG to find out other ways in which biomass and renewable energy could enhance Colombia's agricultural development. My objective evolved towards management of scarce resources, particularly forest conservation as a peace building tool. This project is related to what I've been doing for the past ten years, developing social and economic projects that enable sustainable livelihoods for peasants affected by the armed conflict.

My experience at ERG has been unique; to share and learn from such diverse backgrounds and passionate people was amazing. I feel privileged for the opportunity I've had and I'm profoundly grateful to Rotary International which made it possible by funding me through its World Peace fellowship. I also want to express special gratitude to my advisor Dick Norgaard for his support, guidance and encouragement and to Bette Evans for her unconditional assistance. Thank you ERG community!!

Imran Sheikh

You really can do anything at ERG, which makes it a great place for indecisive people like me. You can commit to coming here without knowing what you're going to do for the next 2+ years. I started making a list of interesting research questions after I arrived, and one day it hit me: I actually have the time, resources, and freedom here to answer any of these. I've focused my research in the areas of energy efficiency, demand response, and integration of renewables onto the grid, but my broader objective is to create business-led solutions to environmental problems. After applying to over twenty graduate programs over five years, the decision to come to ERG (and come when I did) was the right choice. When I consulted with my boss and mentor, Amory Lovins, about where to go, he told me no other program comes close to ERG. While I originally thought that the reasons to come to ERG were the superstar faculty and the proximity to Lawrence Berkeley Lab, I quickly realized that the best part about ERG was the quality and diversity of my fellow students. Our class isn't exactly gender balanced, but Jamil and I aren't complaining. Represent.

Mary Gifford

Mary studies Rural Renewable Energy; India; microfinance; solar home systems; climate policy. With visiting scholar Dr. Omar Masara, Professor at the Universidad Nacional Autonoma de Mexico, Mary co-facilitated a rural electrification seminar during spring semester.

Anna Sommer

When I came to ERG in 2008, I thought I was giving up two years of real world experience to take a few classes and get a degree. Instead, I've learned more than I ever thought possible. Intellectually, ERG has made me more well-rounded, deepened my understanding of energy systems and improved my critical thinking. I've also learned that an economist can do engineering!

Personally, I've met a group of incredible people. They are selfless, caring and always there when I needed them. Armed with the tools and knowledge I've gained at ERG, I'll return to working on the vexing problem of our reliance on coal and its contribution to climate change. My master's research has focused on how one potential solution to this problem – carbon capture and storage – can exacerbate water quantity and quality issues. The root of this research is an idea that came to me one day during the engineering class I took my first semester at ERG!

I truly owe so much to my classmates, the faculty and staff. It has been an honor and a pleasure that I will always be grateful for!

Jelena Simjanovic

I am in love with ERG!! I feel so privileged for having a chance to spend two incredible years amongst some of the most motivated, inspiring and curious people I ever had a chance to meet. I came to ERG upon finishing my master's degree at the Goldman School of Public Policy where I had been working on climate policy and carbon markets. At one point, I realized that without knowing the climate science my contribution to the regulatory world would be very limited, which is the reason why I extended my graduate school experience and came to ERG.

Two years later, my knowledge of energy, environment and resources extends much beyond climate science! And that is not a result of the coursework I have taken, but the interaction with fellow ERGies who strive to solve many of the world's pressing problems. I have been in awe with the knowledge of the ERG faculty, and fellow groupmates that have been developing sanitary systems across the developing world, creating mechanisms for preventing deforestation, improving energy efficiency programs… The list is long! More than academic pursuits, what I really enjoyed at ERG was BEING the community, people having enormous respect for each other's work, and a firm dedication to improve the World one incremental step at a time.

Finally, I have to say that ERG would not be what it is without its wonderful staff that has been supporting me throughout this very exciting, albeit equally challenging process. I want to thank Donna, Bette, Sandra, Jane and Lee for always being there for me -- for hugs, food, advice, words of wisdom and calm, for jokes and laughs, and for making me feel at home. I will miss you very much!

ERG FACULTY:

Chair Daniel Farber

We celebrated a number of events this year at ERG: Isha Ray's promotion to Associate Professor, Dan Kammen's reappointment as the holder of the Class of 1935 Distinguished Chair in Energy, and Duncan Callaway's completion of his first year of teaching. Dan Kammen was also appointed by Secretary of State Hilary Clinton as the State Department's first clean energy fellow to the Western Hemisphere. We were also delighted to announce the award of the first Alex Farrell Fellowship, with generous financial support from the E3 environmental consulting firm.

We continued our planning efforts for a serious expansion of ERG to address the enormous challenges facing our society. We hope to see a substantial expansion of ERG's core faculty and a smaller but significant expansion in our student body. The trick is to accomplish this while maintaining ERG's unique culture.

John Holdren, whom many of you will remember from his days at ERG, delivered a brilliant ERG Annual Lecture on Earth Day to a standing-room-only audience. His topic was "Science and Technology for Sustainable Well-Being: Priorities and Policies in the Obama Administration." The lecture focused on his current work as President Obama's science advisor.

Otherwise, it was a normal year at ERG – meaning the "usual" fabulous students, path breaking research, and distinguished public service!

John Holdren and Dan Farber at ERG's Annual Lecture

Isha Ray

ERG congratulates Isha Ray, who was promoted to Associate Professor in July 2009. Isha continues her invaluable student advising, teaching, and research, and is on a well-deserved sabbatical until July 2010.

Richard Norgaard

Professor Norgaard was appointed to the Board of the New Economics Institute and to the Scientific Steering Committee of the new College of Earth Sciences of Tsinghua University in Beijing. He was one of 100 invited international experts to the scoping meeting for the 5th assessment of the Intergovernmental Panel on Climate Change and looks forward to further involvement. He retired from the Board of Directors of the American Institute of Biological Sciences after a decade of service.

In the Fall, Norgaard taught for the third time a course on "Religion, Science, and the Ecological Crisis in Postmodern America, this time co-teaching with a Lutheran minister studying for a PhD in science and theology at the Graduate Theological Union (GTU). This led to half a dozen GTU students participating in the course and some very interesting discussions. A Lebanese student from the course subsequently asked him to be a Lector in his ordination to the Maronite priesthood held at the Jesuit School after which Norgaard found himself having to explain to Jesuits witnessing the event that he was among the sheep who had strayed many times, and far, since Martin Luther. Professor Norgaard initiated a new course on California Water with the help of first year masters student Kristin Brainerd. Too much of his writing time has gone into co-editing, i.e. harassing authors for their chapters for an Oxford Handbook on Climate Change and Society. Two weeks of rafting on the Colorado River, through Cataract Canyon with his family and on the first half of the Grand with his first daughter, this summer may get him in psychological shape for another year of teaching, or may not.

John Harte

In spring, 2010, John Harte gave an invited presentation to the Western Wilderness Conference on " Climate and Wilderness", participated in a workshop on macroecology in Prague, and gave invited colloquia on Maximum Entropy Methods in Ecology at UCLA, Utah State U., and the Carnegie Institution at Stanford. He also signed a book contract with Oxford U. Press to write a textbook on Macroecology and Maximum Entropy.

Gene Rochlin, professor emeritus

After some years of dodging academia, Gene Rochlin has been working on a paper on field work methodology. He has also been seen at ERG again on Wednesdays, where he has been attending the PhD seminar.

Daniel Kammen

Dan Kammen has been named to to be the Envoy on Clean Energy for the U. S. State Department for the Energy and Climate Partnership for the Americas. Kammen was introduced in this new role by Secretary of State Hillary Clinton at the April 15 Summit of the Americas in Washington, DC. http://www.berkeley.edu/news/media/releases/2010/04/15_kammen.shtml

He was also named to the U. S. Environmental Protection Agency Scientific and Technical Advisory Group that reports to Administrator Lisa Jackson.

Dan was appointed to two National Academy panels and boards: the Board on Global Science and Technology (2009 - 2014) and the National Research Council's Computing Research for Environmental and Societal Sustainability, which has been convened under the auspices of the NRC's Computer Science and Telecommunications Board (CSTB).

Dan has been active in southeast Asia and the south Pacific advising the Government and NGO groups in Malaysian Borneo (in particular Sabah) on clean energy options, and is working with the UC Berkeley Gump research station on clean energy options.

Working with ERG student Laura Schewel, they have formed the Virtual Electric Vechicle Company.

Margaret Torn

Margaret Torn is Adjunct Associate Professor in Energy and Resources and heads the Climate and Carbon Sciences Program at Berkeley Lab, where she studies climate change and terrestrial ecosystems. Her research group uses fieldwork and modeling to study the carbon cycle and the potential for feedbacks between climate change and ecosystem processes that would amplify climate change. In Spring 2010, she led a seminar on climate change adaptation: policies and politics. With other ERG faculty, she helped set up a fellowship in the name of Alex Farrell, ERG faculty member until 2008, which will begin funding an ERG PhD student this summer.

Dr. Torn serves on the national science steering group for the Inter-Agency U.S. North American Carbon Program. One of her new projects looks at biofuels using a global climate model. Her newest project is a laboratory experiment on biosequestration with black carbon (biochar), using isotopic, chemical, and microbial observations. Her students work in Africa, North America, and Europe.

In the past year she received an outstanding mentoring award and published papers with colleagues and students on: soil carbon cycling in tropical forests, water needed for biofuel ethanol production, regional ecosystem CO_2 fluxes, effects of altered rainfall and temperature on grassland species, diffuse radiation and plant carbon exchange (just in time for the Iceland volcano eruption and its large release of light-scattering aerosols!)

Duncan Callaway

Duncan joined ERG in the Fall of 2009 after finishing a post as a research scientist at the University of Michigan. He taught a class on the grid in the fall and is active in a few new campus energy initiatives, most especially the i4Energy Center which focuses primarily on demand-side strategies to improve our electricity infrastructure. He has continued his research in demand response, plug-in electric vehicle control and wind farm siting, and published a few papers in the Journal of Power Sources, IEEE Transactions on Control Systems Technology, IEEE Transactions on Energy Conversion and several conference proceedings. He was selected as a speaker for a National Academy of Engineering Frontiers of Engineering session. In October, he and his wife Meredith Fowlie (assistant professor in Ag. and Resource Econ) had their first child, Amelia.

ERG News:

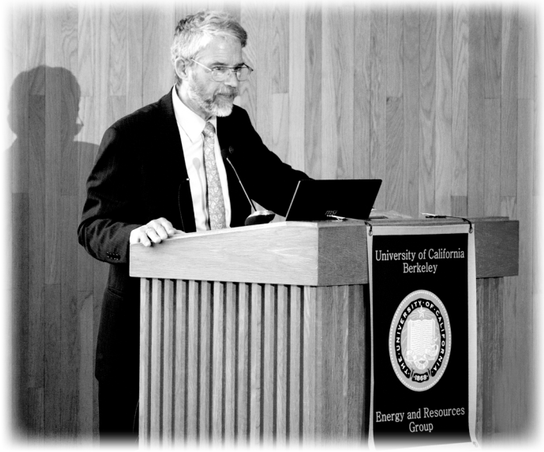
Cathy Kunkel honored as Outstanding GSI for 2009-10 (ER102, Spring 2009).

Mike Kiparsky will attend this summer's American Meteorological Society Summer Policy Colloquium in Washington, D.C. as the recipient of an NSF-funded scholarship.

Congratulations Sintana Vergara!!
Awarded 1-year Fulbright Fellowship to conduct research next year in Colombia.

Congratulations to Sam Borgeson awarded the Alexander E. Farrell Graduate Fellowship, 2010-11.

350.org Rally, San Francisco, CA Fall 2009
Zoë Chafe, Rebekah Shirley, Nate Aden, Christa Chavez, Froy Sifuentes, Erica Newman



The Energy and Resources Group's 17th Annual Lecture was held on Earth Day, April 22, 2010. John P. Holdren Assistant to the President for Science and Technology and Director of the Office of Science and Technology Policy in the Executive Office of the President of the United States spoke on "Science and Technology for Sustainable Well Being: Priorities and Policies in the Obama Administration" to an overflow crowd. From 1973 until 1996 Dr. Holdren was the founding core faculty member in ERG. Listen to the podcast on the Energy and Resources Group website.

Executive Vice Chancellor & Provost George Breslauer introduced Dr. Holdren

ALUMS:

Sam Arons MS '07

Sam continues to work on the Green Business Operations team at Google. He recently partnered with the Google Finance team and the UK-based Carbon Disclosure Project to launch companies' "carbon disclosure ratings" in Google Finance. These ratings evaluate how well companies are measuring and managing their greenhouse gas emissions, and their inclusion will hopefully make it easier for investors to take this information into account when making investment decisions. More info can be found at http://bit.ly/askxpz.

Patrick Gonzales PhD '97

Patrick continues applied research on climate change with the U.C. Berkeley Center for Forestry. Forthcoming publications include articles on global vulnerability to climate change vegetation shifts (Global Ecology and Biogeography) and on forest carbon in Sierra Nevada and North Coast forests (Remote Sensing of Environment) and a book chapter on adaptation of natural resource management to climate change (Springer).

Donna Green, PhD '04

Teaching at University of New South Wales; new book release - Screw Lightbulbs - http://www.screwlightbulbs.com/ - release date April 2010.

Meet the Kantenbachers

ERGie sweethearts Anna Motschenbacher (MS '08) and Joe Kantner (MS '09) were married in January in Anchorage, Alaska. Both Kantenbachers are currently working on their PhDs at ERG.

Sharachchandra Lele, PhD '93

The Centre for Interdisciplinary Studies in Environment & Development, co-founded by Sharachchandra Lele in 2001, has moved and merged with the Ashoka Trust for Research in Ecology and the Environment (ATREE: www.atree.org). Sharad is now Senior Fellow and Convenor of the Centre for Environment & Development in ATREE, which has ten multi-disciplinary faculty working on forests, water, NRM and climate change issues. Sharad will be on sabbatical during 2010-11, partly at Cambridge as a Charles Wallace Visiting Fellow and partly at Stanford University as a Fulbright Fellow. He hopes to meet up with old and new ERGies during the latter stint in the Fall of 2010.

Penn Loh, MS '94

In September 2009, I started a new position as Professor of the Practice at Tufts University's Department of Urban & Environmental Policy and Planning. This program is officially accredited in urban planning, but has been an interdisciplinary department much like ERG for about 30 years. I've had a lot of fun transitioning to teaching and advising, which has left me ample time to continue my work with environmental justice partners and serving on various state policy bodies. I am an advisor to the Massachusetts Green Justice Coalition. And I serve on the state's Energy Efficiency Advisory Council, Climate Protection and Green Economy Advisory Committee, and Energy Facilities Siting Board. I had no idea that 16 years after ERG, I'd actually be doing so much work in energy. I keep in touch with Jamal Gore and Dara O'Rourke. I also saw Jeff Hobson in Boston this past fall. I hope to run into more ERGies here in New England.

Nicholas Martin MS '99

After a two-year stint working for Xcel Energy primarily on climate and energy policy, recently returned to Winrock International as Chief Technical Officer of the American Carbon Registry. ACR is the oldest and largest U.S. private voluntary greenhouse gas registry; Nick's primary responsibilities there involve developing new standards and methodologies for carbon offset projects in a broad range of sectors. Nick lives in Saint Paul, Minnesota with his wife Rachel and children Frances (5) and Earl (3).

Gwen Ottinger MA '99, PhD '05

My update: I have a new job! Starting in fall 2010, I will be assistant professor of Science and Technology Studies at the University of Washington-Bothell, Interdisciplinary Arts and Sciences Program.

Michael Starkey, MA '05

Guess what? I'm moving to NYC! I recently accepted a position there, similar to the work I do now. The new job is with a company called Dome-Tech, www.dome-tech.com. They were bought out a couple of years ago by UTC, so they're part of a conglomerate - Start date, April 21.

Cyrus Wadia PhD '08

Cyrus Wadia,co-director of the Haas School's Cleantech to Market Program, has been asked by the White House to spend a year in Washington, DC, to advise its Office of Science and Technology Policy on renewable energy.

With a focus on solar energy, Wadia will be charged with directly supporting President Obama's mission of making solar energy economically viable on a global scale. His role will be to carry out a broad range of advisory tasks, cross-agency coordination, and program management activities toward this goal.

Beth Zotter, MS '04

Back in Berkeley - After a long job hunt, I'm now working at Bio Architecture Lab, a biotech startup working on developing and farming seaweed as a feedstock for renewable fuels and chemicals.

ERG congratulates the latest group of bright Berkeley undergrads who have completed the ERG Minor:

Helen Aki	Timothy Lee
Ethan Avey	Mirriam Morris
Jessica Goddard	Shana Patadia
Angelina Harrison	Sequoia Patterson
Willis Hon	Seth Saltiel
Alan Jenn	Alexander Valati
Sarah Klug	Morgan Wallace
	Brian Young

Dan Kammen and Carla Peterman in Lisbon - both were presenters at the Novas Fronteiras conference.

ERG Town Hall Meeting Fall 2009

Masters Class 2010

(Pictured from left to right) ImranSheikh, Mary Louise Gifford, Jamil Farbes, Lara Cushing, Anna Sommer, Bessma Mourad, Jelena Simjanovic, Alejandra Rueda-Zarate, Zoë Chafe, Alisar Aoun

Congratulations!!

The Energy and Resources Group is currently involved in a major fundraising campaign to expand the faculty and student community. To do so, we need your support.

ERG's mission is research and education for a sustainable environment and a just society. Established as an academic degree-granting program at UC Berkeley in 1973, ERG has become a unique interdisciplinary community of graduate students, core faculty and over 100 affiliates and researchers from across the campus.

ERG produces cutting edge research to inform scientific, policy, and business communities. ERG is an intellectual hub for research on clean energy, climate science, ecosystems and biodiversity, energy sytems, international development, technology and society, and water policy.

To make a gift or help in other ways, please contact:
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(510) 642-1640, to give online, go to ***http:erg.berkeley.edu***